



AF *zhu*


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Assignee's Docket No.: 9040.00)
Group Art Unit: 3628)
Serial No.: 09/651,983)
Examiner: F. Poinvil)
Filing Date: August 31, 2000)
Title: Adaptive, Predictive)
System for Replenishing)
Currency in ATMs)
_____)

APPEAL BRIEF
A Summary of Argument Begins on Page 4

CERTIFICATE OF MAILING

I certify that this document is addressed to Mail Stop AF, Commissioner of Patents, PO Box 1450, Alexandria, VA 22313-1450, and will be deposited with the U.S. Postal Service, first class postage prepaid, on January 3, 2006.



Gregory A. Welte

The fee for this Brief may be billed to Deposit Account 14 - 0225, NCR Corporation.

1. REAL PARTY IN INTEREST

NCR Corporation.

2. RELATED APPEALS AND INTERFERENCES

None.

3. STATUS OF CLAIMS

Claims 1 - 11 are pending, rejected, and appealed.

09/651,983
Art Unit 3628
9040.00

4. STATUS OF AMENDMENTS

No Amendments-After-Final have been submitted.

5. SUMMARY OF CLAIMED SUBJECT MATTER

As explained on page 3, line 20 et seq., of the Specification, ATMs, Automated Teller Machines, are connected to a central computer which controls the ATMs. (In the banking industry, the central computer is called a "switch," which is a term used by the Specification: see page 1, line 12.) Figure 2 shows the ATMs and a switch 3.

The switch becomes involved, for example, when a customer visits an ATM to withdraw cash. The ATM communicates with the central computer to verify (1) the identity of the customer, (2) that the customer's account can cover the withdrawal, and so on.

After a sufficient number of such transactions, an ATM will require replenishment of cash. Ordinarily, technicians periodically visit each ATM, count the money stored and, if replenishment is needed, the technicians insert cash into the ATM. (See page 1, lines 22 - 26.) However, under the invention, this counting is not done (or at least not done every time), and, instead, the switch, or central computer, remotely makes an estimate of the cash supply currently stored within an ATM.

If the estimated cash supply is deemed insufficient, the central computer tells the technicians how much cash to re-stock.

09/651,983
Art Unit 3628
9040.00

The technicians visit the ATM, temporarily shut down the ATM, and gain access to the internal workings. At this time, the ATM sends a signal to the central computer, informing that computer of the shut-down.

After the technicians replenish the ATM, they re-start the ATM, and a re-start signal is sent to the central computer, indicating that the ATM is again operational.

Based on either the shut-down signal, the re-start signal, or both, the central computer infers that the ATM has been replenished with cash. Now the central computer knows how much cash it can order the ATM to dispense to customers.

Significantly, the technicians did not report to the central computer the amount of cash they inserted into the ATM. (See Specification, page 5, line 6 et seq., Significant Feature number 2.)

Also, in one embodiment, the ATMs are, in effect, equipped with burglar alarms. The central computer schedules a time period for replenishment of a specific ATM. If the burglar alarm issues a signal during that time period, the central computer assumes that the entry into the ATM was not a burglar, but a technician replenishing cash. In response to that particular burglar alarm signal, the central computer classifies the ATM in question as replenished, rather than reporting the ATM to the police as being burglarized.

09/651,983
Art Unit 3628
9040.00

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Rejection of claims 1 - 3 and 10 as anticipated under 35 USC § 102, based on Clark.

Rejection of claims 6, 7, and 9 as obvious under 35 USC § 103, based on Ross and Clark.

Rejection of claim 4 as obvious under 35 USC § 103, based on Clark.

Rejection of claim 5 as obvious under 35 USC § 103, based on Ross and Clark.

Rejection of claims 8 and 11 as obvious under 35 USC § 103 based on Clark.

7. ARGUMENT

SUMMARY OF ARGUMENT

Independent Claim 1

Claim 1(d) recites:

d) using the replenishment signals, and without using communications from parties performing the replenishment, preparing one, or more, reports concerning the ATMs replenished.

Claim 1 was rejected as anticipated by Clark. In Clark, a technician who replenished an ATM with currency punches into a keypad the amount replenished. That punched-in amount is used by

09/651,983
Art Unit 3628
9040.00

Clark to prepare a report.

Plainly, Clark does not show claim 1(d): Clark's punched-in amount is a "communication" as in claim 1(d). The claim states that such "communications" are not used.

The Final Office Action makes various arguments which, in essence, assert that some parts of the report in Clark are made without "communications from parties performing the replenishment." Even if that be true, that is irrelevant.

It has just been shown that claim 1(d) is not found in Clark, because of the technician's key-punching of a dollar amount which is then used in a report. That single event is sufficient to prevent claim 1 from reading on Clark.

The fact (if true) that claim 1(d) may be found elsewhere in the Clark-report is not relevant.

Independent Claim 6

Numerous elements of claim 6 are not found in the two references used, even if combined. Those elements are listed herein, beginning on about page 23.

All elements of the claim must be shown in the combined references.

09/651,983
Art Unit 3628
9040.00

Independent Claim 8

Point 1

Claim 8(a) recites:

- a) generating a list of
 - i) ATMs scheduled to be replenished in currency, and
 - ii) the amounts of currency to be replenished in each.

The PTO admits that Clark does not show the "list" containing "amounts" for the ATMs. But the PTO asserts that such a list is necessarily present. That is simply not correct.

Clark's technician can be given a suitcase full of money, which he uses to fill each ATM. In fact, Clark alludes to such an approach: see column 1, lines 46 - 49. No "list" is needed.

Further, any such "list" is contrary to Clark's teachings. As explained herein (see Sketch 1, near page 7, below), Clark detects when his stack of currency reaches a certain height. He then issues a "low" signal.

However, plainly, that certain height is **the same in every ATM**. Thus, whenever a "low" signal is issued, it is known that the stack of currency in the issuing ATM is at the certain height.

Consequently, the amount of currency needed to replenish those ATMs is **the same in every case**. There is no need for a "list" indicating the needed amounts. All amounts are the same.

09/651,983
Art Unit 3628
9040.00

Point 2

The PTO admits several elements of claim 8 to be absent from the prior art. The PTO asserts these elements to be "obvious."

That is a mis-application of the law of obviousness. "Obviousness" is not a device to supply elements not shown in the prior art. That is done by asserting the elements to be "well known" or "inherent."

"Obviousness," by the terms of section 103, is only applicable to claims "as a whole." Only claims can be obvious, not missing elements.

Point 3

Claim 8(c) recites **three** types of data, for each of several ATMs. (If four ATMs are present, then 12 items of data would be present: $3 \times 4 = 12$.) The PTO relies on a reference showing a **single** computer to show this.

That is simply impossible. Why would that computer generate three types of data, for computers not shown, nor discussed, in the reference ?

Independent Claim 5

The PTO's motivation for combining the references is to solve a certain supposed problem. But that problem has not been shown

09/651,983
Art Unit 3628
9040.00

in the prior art.

Appellant previously asked that this problem be identified in the prior art. No identification has been made.

Therefore, no valid reason for combining the references has been given. The motivation for combining the references must be shown as known in the prior art.

In addition, Appellant has pointed out another, trivial, solution to the supposed problem, which requires no combination of references, or re-design of references. Thus, since the PTO ignores a simple solution to the problem, and prefers a vastly more complex solution, it is clear that the PTO is combining the references in order to reject the claim. That is, the combination of references is actually motivated by Appellant's claim, not by the supposed "problem." That is not allowed.

Also, numerous elements of claim 5 are absent from the references, even if combined.

END SUMMARY

RESPONSE TO 102 - REJECTION OF CLAIMS 1 - 3 and 10 BASED ON CLARK

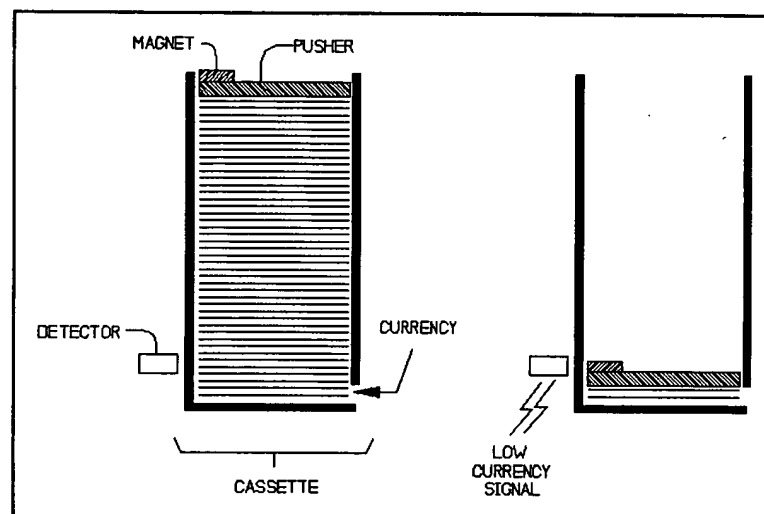
CLARK REFERENCE

Clark indicates that, in ATMs, a magnet is commonly positioned on a "pusher" atop a stack of currency held in a cassette. (The "pusher" is a weight placed on top of the stack of currency.)

09/651,983
Art Unit 3628
9040.00

Currency which is dispensed to customers is withdrawn from the cassette. As the currency is dispensed, the magnet will be lowered, since the stack of currency becomes shorter. Eventually, the magnet reaches a point where it actuates a reed switch, indicating that the cassette should be replenished. (Column 1, lines 16 - 28.)

Sketch 1, below, is a schematic of the situation.



Sketch 1

The DETECTOR in the Sketch corresponds to Clark's reed switch. When the stack of currency becomes sufficiently depleted, a LOW CURRENCY SIGNAL is issued by the DETECTOR, because the MAGNET has arrived at a point adjacent the DETECTOR, and the DETECTOR detects the magnetic field.

09/651,983
Art Unit 3628
9040.00

Applicant points out that the DETECTOR (ie, Clark's reed switch) is "mounted within the ATM." (Column 1, line 27.) Thus, when the CASSETTE is removed, the DETECTOR remains in place. This will become significant to claim 4, as discussed below.

Clark discusses this detection scheme in his Background. However, it is not clear whether

A) this type of detection is used in Clark's invention

or

B) Clark is only pointing to the presence of this type of detection in his prior art.

The lack of clarity stems from the fact that Clark is not concerned with detection of low levels of currency. Instead, he is concerned with a particular problem caused by **cassettes containing** the low levels of currency.

Clark states that such partially empty cassettes are transported to the bank owning the ATM. Clark states that the problem is that this approach allows theft of currency from the cassettes: technicians are in possession of partially empty cassettes, which contain money which can be stolen. (Column 1, lines 56 - 65.)

Clark's invention solves this problem, by eliminating transport of the partially empty cassettes, in a manner which will now be explained. (See column 7, top.)

09/651,983
Art Unit 3628
9040.00

Clark discusses a replenishment sequence, which includes the following steps.

- 1) A technician visits an ATM.
- 2) The technician punches his ID data into the customer keypad. If the technician's ID is verified, the technician is allowed to place the ATM into "supervisory mode," wherein it will not respond to customers. (Column 5, lines 49 - 57.)
- 3) If the technician selects a "replenish" option, then the ATM generates a status report. This status report indicates the current cash contents of each cassette within the ATM. (Column 5, line 66 - column 6, line 7.)

Applicant points out that this status report **IS NOT** printed if the technician **DOES NOT** select "replenish." (Figure 5, "NO" branch of decision block 126.)

- 4) The technician may select a "purge" operation, wherein partially empty cassettes are emptied into a storage device. (Column 6, line 8 et seq.) The now-purged, and now-empty, cassettes can be returned to the bank.

09/651,983
Art Unit 3628
9040.00

5) Whether or not "purge" is selected, the technician then replaces empty cassettes with full cassettes. The technician, using key pad 27 in Clark's Figure 2, which is inside the ATM (Column 3, lines 9 - 13), informs the "host computer" at the bank of the type and amount of bills replenished. (Column 6, lines 41 - 67.)

The "host computer" is informed by way of an ATM STATUS REPORT. (Column 6, lines 52, 53.)

APPLICATION OF CLARK TO CLAIMS

Claim 1

Claim 1 recites:

1. In connection with operation of a system of ATMs, each of which contains at least one computer, a method comprising the following steps:

- a) identifying low-stocked ATMs, which require replenishment of currency;
- b) causing replenishment of currency in low-stocked ATMs to occur;
- c) receiving replenishment signals from the replenished ATMs; and
- d) using the replenishment signals, and without using communications from parties

09/651,983
Art Unit 3628
9040.00

performing the replenishment, preparing one, or more, reports concerning the ATMs replenished.

Point 1

Applicant first points out how this claim can read on some processes described in the Summary of the Invention, above.

A technician replenishes currency, as in claim 1(b). As explained in the Summary, after replenishment, the technician locks up the ATM, and the ATM sends a signal to the central computer, indicating that the ATM is again operational. The central computer treats that signal as the replenishment signal of claim 1(c).

Then, the central computer assumes that the technician loaded the proper amount of cash into the ATM. The central computer adds that amount to the previously estimated amount, to produce a current estimated total within the ATM. That total is part of the "report" of claim 1(d).

However, Applicant points out that the technician provided no input to that report. No "communication" from the technician is found in the content of the report.

This contrasts with Clark, wherein the technician punches into a keypad the amount which was replenished. That amount appears in the report of Clark.

09/651,983
Art Unit 3628
9040.00

Point 2

Applicant points out that the **highlighted** section of claim 1(d) is absent from Clark.

The PTO previously relied on Clark, column 6, lines 50 - 53, to show claims 1(c) and (d). That Clark-passage states:

An updated ATM STATUS REPORT
based on the input data
is sent to the host computer in step 138.

Applicant points out that "the input data" is obtained from the technician performing the replenishment. That "input data" is described in column 6, line 46 et seq., and is punched in by the technician on keypad 27, within the ATM, in Clark's Figure 2. That "input data" indicates the type and number of bills replenished.

That is contrary to the **highlighted** section of claim 1(d), which is repeated here:

d) using the replenishment signals, **and without using communications from parties performing the replenishment**, preparing one, or more, reports concerning the ATMs replenished.

From another point of view, Clark discusses no mechanism or device which can generate the ATM STATUS REPORT automatically, and without the involvement of the technician. Plainly, input from the technician is required for this ATM STATUS REPORT, contrary to claim 1(d).

09/651,983
Art Unit 3628
9040.00

Point 3

Claim 1(c) recites "replenishment signals." The PTO previously relied on column 6, lines 50 - 53, to show the "replenishment signals."

However, that passage only shows data which is input **by the technician**. Claim 1(d) recites that the replenishment signals are used for preparing a report, "**without using communications from parties performing the replenishment.**"

The Clark-passage is directly contrary to the claim. In Clark, the technician tells a central computer how much cash was replenished. Any "status report," whether generated by the ATM or the central computer, contains data from the technician, contrary to claim 1(d).

Response to Final Office Action

POINT 1

The Final Action, page 2, second-to-last paragraph (beginning with "Applicant's representative . . .") merely points out that Applicant asserts that Clark does not show certain claim recitations.

POINT 2

The third and fourth sentences of the Final Action, page 2,

09/651,983
Art Unit 3628
9040.00

last paragraph (beginning with "In response . . .") are mutually contradictory.

-- The third sentence asserts that claim 1(d) emphasizes **who** prepares the report;

-- The fourth sentence asserts that claim 1(d) **does not** state who prepares the report.

The Final Action is self-contradictory.

Contradictory arguments are not allowed.

POINT 3

The Final Action, page 3, first full paragraph (beginning with "In the system . . .") is erroneous and irrelevant.

That paragraph merely asserts that, in Clark, no communications are required after "replenishment signals" are received. That paragraph is irrelevant because it arbitrarily refers to a cut-off point in time, after which communications are supposedly not made.

It is irrelevant whether such a cut-off point exists. The question is whether the language of claim 1(d) is found in Clark. It is not.

The paragraph is erroneous because, even if the cut-off exists, a technician in Clark **does** send the "communications" of claim 1(d) **BEFORE** the supposed replenishment signals are sent by Clark's ATM. Thus, the "communications" prohibited by claim 1(d)

09/651,983
Art Unit 3628
9040.00

would be present in Clark, and then claim 1(d) would not be found in Clark. (Because claim 1(d) states that such "communications" are not present.)

Therefore, the paragraph in question of the Final Action is irrelevant, erroneous, or both.

The paragraph merely asserts that a **non-claimed** element is **not present** in Clark. That is irrelevant.

POINT 4

The Final Action, page 3, last paragraph (beginning with "Applicant's step . . .") asserts that the claim does not state who receives the replenishment signals.

In general, a method claim is not required to state who performs its steps. In general, the question, for infringement and anticipation purposes, is whether the claimed steps are performed by the reference or infringer.

Of course, it is possible that, in the context of some claims, the identity of the performer may be important. But that has not been shown here.

Further, the PTO's assertion is not fully correct. The claim identifies parties who **do not** prepare the report, namely, "the parties performing the replenishment." The report is prepared without "communications" from those parties.

09/651,983
Art Unit 3628
9040.00

POINT 5

The Final Action, page 4, first paragraph (beginning with "Clark et al positively . . ."), asserts that Clark shows some elements of claim 1. Appellant has chosen not to argue about that, because the absence of claim 1(c) and (d), combined, from Clark is considered dispositive.

The last sentence of this paragraph in the Final Action asserts that communications do not take place in Clark while the report is being generated. Applicant points to two problems with this assertion.

The first problem is that the assertion is irrelevant. The Final Action asserts that a **non-claimed** element is **not present** in Clark. That is not relevant.

The second problem is that the assertion is clearly defining the phrase "while the report is being generated" as referring to processes occurring **after** input is received from the technician.

But no justification has been given for such a definition.

By analogy, the undersigned attorney provided input to this Brief while he was preparing it. But when his computer prints it onto paper, he provided no input. It is not reasonable to assert that the "preparation" stage is limited to the printing, and not the writing.

Similarly, in Clark, the report-generation process includes the process of receiving input from the technician. Thus, it is

09/651,983
Art Unit 3628
9040.00

incorrect to say that the report is generated only after communications are received from the technician.

The communications are part of the report. If no communications were received, no report could be made.

POINT 6

The Final Action, page 4, last paragraph (beginning with "Clark et al also. . .") points to the operations in Appellant's summary of Clark given above, part of which is repeated here:

5) Whether or not "purge" is selected, the technician then replaces empty cassettes with full cassettes. The technician, using key pad 27 in Clark's Figure 2, which is inside the ATM (Column 3, lines 9 - 13), informs the "host computer" at the bank of the type and amount of bills replenished. (Column 6, lines 41 - 67.)

The "host computer" is informed by way of an ATM STATUS REPORT. (Column 6, lines 52, 53.)

Plainly, claim 1(d), repeated immediately below, is not found in that operation:

09/651,983
Art Unit 3628
9040.00

d) using the replenishment signals, and **without using communications from parties performing the replenishment**, preparing one, or more, reports concerning the ATMs replenished.

Clark's ATM STATUS REPORT contains input from the replenishing technician. Thus, that REPORT cannot qualify as the "report" under claim 1(d). And no other report has been shown in Clark.

This paragraph of the Final Action makes several non-relevant assertions, discussed here.

Third sentence: "Thus, the operator does not create the status report." Appellant points out that this is irrelevant. The question is whether "communications" from the operator went into the status report, as in claim 1(d). The question **is not** whether the operator "created" the status report.

Fifth sentence: "the report . . . is generated for the operator, not by the operator." Appellant submits that this is factually incorrect. Clark's operator clearly causes the report to be created. And, again, this sentence does not focus on the relevant issue: whether claim 1(d) is found in Clark.

09/651,983
Art Unit 3628
9040.00

The balance of this paragraph points to content of Clark's report which is supposedly generated automatically, without involvement of the technician. However, that is, again, irrelevant.

Clark's technician provides the content of the report identified above. Thus, claim 1(d) is not found in Clark. If other parts of the Clark-report are generated independent of the technician, that is irrelevant.

One More Point

For claims 2 and 3, discussed below, the PTO asserts that the "replenishment signals" are issued by a computer within Clark's ATM.

That is inconsistent with the PTO's treatment of the technician's keypad entries in Clark as the "replenishment signals" of claim 1.

Conclusion as to Claim 1

Claim 1(d) states that a "report" is prepared "without using communications from parties performing the replenishment."

In Clark, it is undeniable that the "report" is prepared using communications from the replenishing technician. That technician key-punches the amount of money replenished, and that key-punched

09/651,983
Art Unit 3628
9040.00

data goes into the report. Claim 1(d) is not found in Clark.

No argument in the Final Action rebuts this conclusion.

The Final Action does attempt to show that claim 1(d) is not found in certain other operations in Clark. For example, the Final Action asserts that part of the report is prepared without involvement of the technician. But this example is irrelevant: claim 1 does not state that the technician prepares the entire report.

And the general assertion that claim 1(d) is found elsewhere in Clark is also irrelevant.

The **single** involvement of the technician in Clark in preparing the report is sufficient to preclude reading claim 1 onto Clark.

Claim 2

Claim 2 recites:

2. Method according to claim 1, wherein each replenishment signal is generated by a computer within an ATM.

In rejecting claim 1, the Final Action, page 4, fourth sentence, states that the keypad input of the technician in Clark shows the "replenishment signals."

That is contrary claim 2.

Also, the previous Office Action (mailed February 10, 2005), page 3, stated that, in Clark, replenishment signals are generated

09/651,983
Art Unit 3628
9040.00

by the "operator [who] makes the replenishment." That is contrary to claim 2.

This applies to claim 3.

Claim 3

Claim 3 recites:

3. Method according to claim 2, wherein the replenishment signals indicate contact with an ATM by a party other than a customer in the normal course of business.

As the discussion of claim 2, above, indicates, the PTO has previously asserted that the claimed "replenishment signals" in Clark are generated by the technician. That is contrary to claim 3.

The Final Action, page 5, cites Clark, columns 5 and 6, to show claim 3. The undersigned attorney, on January 3, 2006, carefully examined those two columns, and can find nothing corresponding to claim 3.

Therefore, Appellants submit that the rejection fails to comply with the law. 37 CFR § 1.104(c)(2) states:

. . . the Examiner must cite the best references at his . . . command.

When a reference is complex or shows or describes inventions other than that claimed by the applicant, **the particular part relied on must be designated as nearly as**

09/651,983
Art Unit 3628
9040.00

practicable.

The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

Further, this rejection is inconsistent with the PTO's previous assertion that the keypad entries of Clark's technician show the claimed "replenishment signals."

Claim 10

Claim 10 recites:

10. Method according to claim 1, wherein the identifying process of paragraph (a) is performed by a system remote from the ATMs, without presence of a human at the ATMs.

Clark, column 7, lines 7 - 18, is cited to show this.

However, that passage in Clark merely states that, when a low-level signal is produced by the apparatus shown in Sketch 1, above, then the contents of the cassette are dumped into an "auxiliary storage device 54."

That does not show claim 10.

In fact, that shows the **opposite** of claim 10. The detection is done **within the ATM**, by the low-level detector shown in Sketch 1, above. The low-level signals are issued **within the ATM**.

Claim 10 states that the identification (of low-level ATMs) is done remotely.

09/651,983
Art Unit 3628
9040.00

RESPONSE TO 103 - REJECTION OF CLAIMS 6, 7, and 9

These claims were rejected on grounds of obviousness, based on Ross and Clark. Claim 6 recites:

6. (Original) A method of replenishing a plurality of ATMs, comprising the following steps:

- a) for each ATM, making an estimate of the amount of currency stored therein, without measuring the currency presently stored;
- b) using the estimates, identifying a subset of ATMs to be re-stocked with currency;
- c) for each ATM in the subset, preparing a packet of currency;
- d) transferring the packets to a courier;
- e) receiving one, or more, signals from each ATM, which indicate interaction with the ATM by a party other than a customer;
- f) recording
 - i) the times of receipt of the signals, and
 - ii) the identities of the ATMs issuing the respective signals; and
- g) ascertaining whether the signals were issued by an ATM within the subset and
 - i) if not, contacting a law enforcement agency;
 - ii) if so, adjusting the estimate of the currency stored within that ATM.

09/651,983
Art Unit 3628
9040.00

Applicant submits that, even if the references are combined, claim 6 is not attained. MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

Example 1

For example, claim 6(b) recites

b) using the estimates, identifying a subset of ATMs to be re-stocked with currency.

The Office Action has shown (1) no "subsets" in the references, nor (2) the claimed identification of the subsets.

Example 2

As another example, claim 6(c) recites

c) for each ATM in the subset, preparing a packet of currency.

That has not been shown in the references.

The Office Action previous to the Final Action asserts that

The serviceman would need currency to re-stock these low-stocked ATMs and therefore a packet of currency must be prepared . . .

(Office Action of Feb 10, 2005, page 6, second

09/651,983
Art Unit 3628
9040.00

paragraph.)

However, this assertion is not correct. A packet of currency for each ATM is not required for re-stocking the ATMs. The serviceman could be given a suitcase full of currency (a single "packet" for all ATMs). When he arrives at each ATM, he determines the amount of money needed, and removes that much from the suitcase.

A "packet" for each ATM is not required.

Example 3

As another example, the transfer of the packets to the courier, as in claim 6(d), has not been shown in the references. In fact, the PTO's interpretation of the references implies the **absence** of claim 6(d).

Under the PTO's interpretation, the serviceman in Clark makes an estimate of the amount of currency needed by each ATM. That serviceman, according to the PTO, prepares the "packets." Thus, there is no "transfer" of the "packets" to that serviceman. He has them already.

Further, as explained above, no "packets" have been shown in Clark. Thus, no "packets" are present for "transfer."

09/651,983
Art Unit 3628
9040.00

Example 4

As another example, the Office Action admits that claim 6(f) is not found in Clark. To cure this defect, the Office Action asserts that it is "obvious" to perform the claimed "recording."

However, "obviousness" is not a tool to cure the absence of claim elements in the prior art. "Obviousness" is a legal test of whether an invention is patentable, based on components identified in the prior art.

Stated another way, there is no legal standard for determining whether the (nonexistent) claim elements are "obvious." Under section 103, the standard is whether the claimed "subject matter as a whole" is "obvious," in view of the prior art, not whether a missing element in a claim is "obvious."

Example 5

As another example, the Office Action asserts that Ross shows "contacting a law enforcement agency in the event of an abnormality or malfunction." (Office Action, page 7, first full paragraph.)

That is not correct. In the cited passage of Ross, Ross states that an acoustic sensor is used to detect "forced entries by criminals into the safe 17." (Column 8, line 16.) If such is detected, then Ross issues a signal to the "remote service station 62." The latter notify the police. (Column 8, line 26.)

Thus, Ross does not teach contacting the police if a

09/651,983
Art Unit 3628
9040.00

generalized abnormality or malfunction occurs. He teaches contacting the police if **ONE SPECIFIC EVENT** occurs, namely, forced entry into the safe.

In addition, even if Ross teaches what the Office Action asserts, that teaching does not correspond to the claim. Claim 6(g) recites ascertaining whether the signals were received from an ATM **in the "subset."** Those ATMs were scheduled to undergo replenishment. Ross's supposed calling-the-police if a malfunction occurs does not show ascertaining whether the signals were received from an ATM **in the subset.**

Example 6

As another example, claim 6(g) states that an estimate of the currency held by the replenished ATM is adjusted, because of the "signals." (That is, the signals are taken as indicating that the ATM has been replenished. Consequently, the amount of currency in the ATM is increased by the amount in the packet delivered to that ATM.)

That has not been shown in the references.

Further, the Office Action is being inconsistent. It treats the "warning signal" of Ross (column 8, line 25) as the "signals" of claim 6(g). But claim 6(g) states that the "signals" induce the adjustment of the "estimate," if they emanate from ATMs in the "subset."

09/651,983
Art Unit 3628
9040.00

Ross's signals do not induce the adjustment of the estimate, according to the Office Action. The Office Action states that adjustment of an estimate is done for a different reason. (Office Action, page 7, second full paragraph.) Thus, the Office Action has not shown that the "signals" induce the adjustment, as claim 6(g) recites.

In addition, Applicant submits that the PTO is giving an interpretation to Ross which is contrary to common sense, and to Ross's teachings. Ross overall states that a properly operating ATM produces certain sounds. Ross suggests using microphones to detect the sounds, and if abnormal sounds are detected, to issue a warning. Ross also suggests that a microphone can be used to detect intrusion into a safe, as discussed above.

Ross states that, when a technician services an ATM, the ATM is "shut down." (Column 1, lines 46 - 51.) Thus, it is reasonable to assume that his microphones are also shut down, including the microphone monitoring the safe.

Therefore, no "warning signal" of column 8, line 25 would be issued when an ATM is replenished. Thus, the "signals" of claim 6(e) are not present in Ross, when replenishment occurs.

Conclusion

It has just been shown that numerous claim recitations are absent from the references, even if combined. The combination,

09/651,983
Art Unit 3628
9040.00

even if made, does not show claim 6.

Claim 7

Claim 7 recites:

7. Method according to claim 6, wherein
no person directly reports replenishment
currency supply of any ATM.

Applicant points out that claim 7 is contrary to Clark. As explained above, input data of Clark is obtained from the technician performing the replenishment. That input data is described in column 6, line 46 et seq., and is punched in by the technician on keypad 27, within the ATM, in Clark's Figure 2. That "input data" indicates the type and number of bills replenished, and is sent to a central agency.

That is contrary to claim 7, because, in Clark, a "person" makes the "report," contrary to claim 7.

Therefore, claim 7 is not shown in the references.

Claim 9

Claim 9 depends from claim 7, and is seen as patentable for that reason.

RESPONSE TO 103 - REJECTION OF CLAIMS 8 AND 11

The Final Action repeated the rejection of the previous Office

09/651,983
Art Unit 3628
9040.00

Action (mailed February 10, 2005.) Thus, unless otherwise noted, references in this section are to that earlier Office Action.

Claim 8 was rejected as obvious, based on Clark.

Point 1

Claim 8 recites "In the operation of a group of ATMs, a method comprising" The Office Action admits that Clark shows a **single** ATM. But the Office Action asserts that a "bank usually comprises a plurality of ATMs" (Office Action, page 8, second paragraph.)

Thus, the Office Action is not relying on Clark to show the claimed "group of ATMs," because the Office Action admits the "group" to be absent from Clark. Instead, the Office Action is relying on a **belief** to show the "group." Consequently, the "group" has not been shown in the prior art.

Only prior art can be used to reject claims.

Further, claim 8, by its terms, is directed to a "method" of operating a "group of ATMs." Clark, in showing a single ATM, is non-analogous art. There is no "group" present to be operated.

Point 2

Claim 8(a) recites:

- a) generating a list of

09/651,983
Art Unit 3628
9040.00

- i) ATMs scheduled to be replenished in currency, and
- ii) the amounts of currency to be replenished in each.

The Office Action admits that Clark does not show the "list." The Office Action asserts that, if a plurality of ATMs need replenishment, then the claimed list would necessarily be created. However, at least two problems exist in this rationale.

Problem 1

As stated above, there is no need for an amount-on-a-list required by each ATM. The technician can be given a suitcase full of money, which he uses to fill each ATM. In fact, Clark alludes to such an approach: see column 1, lines 46 - 49.

By analogy, when your car runs low on gas, you do not make an **estimate** of how much gas you need, and then buy that much at a gas station. You simply go to the gas station (analogous to the suitcase), and fill up your car.

Therefore, amounts-on-a-list are not necessarily required, contrary to the PTO's assertion.

Problem 2

The Office Action's rationale is contrary to Clark's teaching, for several reasons.

09/651,983
Art Unit 3628
9040.00

One reason is that, as explained above, Clark places a magnet on top of a stack of currency. As the currency becomes depleted, the magnet drops in position, and eventually activates a switch. That switch indicates a low level of currency.

It is reasonable to assume that all of the ATMs upon which the PTO relies are of the same Clark-type. Therefore, their switches will all be actuated when currency reaches the same level.

Thus, they will all need the **same amount** of replenishment. (Because the "pusher" dropped the same amount in each ATM; See Sketch 1, above.) There is no reason to make a list for the amount of currency needed for each ATM, as in claim 8(a), because they all need the **same amount**.

A second reason is that Clark states that his technicians arrive at the ATMs with fully loaded cassettes. (Column 6, lines 40 - 42; column 1, lines 52 - 56.) Those replace the existing cassettes. Thus, all ATMs receive the same amounts. There is no need for a list.

Therefore, the claimed "list" has not been shown in the prior art. And the PTO's assertion of why a "list" would be used in Clark has been rebutted.

Claim 8(b) and (c)

Claim 8(b) and (c) recite:

09/651,983
Art Unit 3628
9040.00

- b) receiving signals from the ATMs which indicate that entry into the ATMs has occurred;
- c) based on the signals, preparing a report which indicates
 - i) ATMs scheduled for replenishment;
 - ii) ATMs actually replenished; and
 - iii) amount of replenishment for each ATM replenished.

The Office Action asserts that Clark, column 6, lines 40 - 53, shows these claim passages, except for claim 8(c)(i), (ii), and (iii). The Office Action asserts that these latter three elements are "obvious."

Again, Applicant points out that "obviousness" is not a substitute for showing claim elements in the prior art. MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

Further, Applicant points out that claim 8(b) states that the "signals" are received from "ATMs" (plural). The only signals present in Clark are those from a **single** ATM.

Further still, the signals from a **single** ATM cannot be used as in claim 8(c). The signals from that **single** ATM cannot indicate the three types of data [8(c)(i), (ii), and (iii)] for each of

09/651,983
Art Unit 3628
9040.00

multiple ATMs.

Stated another way, at best, the signals of Clark can only indicate information about the ATM which is being replenished, not the rest of the ATMs operated by the bank.

Still further, there is no reason for the **single** ATM which is replenished to issue a report containing 8(c)(i), which lists the ATMs scheduled for replenishment. That ATM would not know the identities of those scheduled ATMs.

And even if the technician knows the scheduled ATMs, why would he add that to the report in Clark ?

Moreover, even if he does report that (but no reason has been given), why would he would do that from every ATM he replenishes ?

Therefore, Applicant submits that the PTO is grafting a procedure onto Clark (namely, that of claim 8(d)(i), (ii), and (iii)) which makes little sense. MPEP § 706.02(j) states:

Contents of a 35 U.S.C. 103 Rejection

To establish a prima facie case of obviousness, three basic criteria must be met.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The . . . reasonable expectation of success must . . . be found in the prior art and not

09/651,983
Art Unit 3628
9040.00

based on applicant's disclosure.

As explained above, grafting the report-contents of claim 8(c) onto Clark make no technical sense. There is no reason to report 8(c)(i) from any ATM, let alone all the ATMs which the technician visits.

And it is impossible for the single ATM of Clark to make reports about all other ATMs. The information of claim 8(c) is not available to that ATM.

No reasonable expectation of success has been shown, contrary to this MPEP section.

No Teaching Given

No teaching has been given for modifying Clark in the manner done. The modification is to add the report-contents of claim 8(c) to Clark. The rationale given is "to confirm the amount being replenished for inventory and tracking purposes." (Office Action, page 9, top.)

However, Clark already does such confirmation. There is no need to add claim 8(c).

Also, claim 8(c)(i) does not confirm any "amount being replenished," so the rationale does not lead to adding claim 8(c)(i) to Clark.

09/651,983
Art Unit 3628
9040.00

Claim 11

Claim 11 recites:

11. Method according to claim 8, wherein the report is generated after the signals are received.

Point 1

The Final Action, page 9, asserts that Clark, column 6, lines 40 - 53 shows this. However, that passage states that a STATUS REPORT is generated, using input data received from the technician.

Claim 11(b) states that the "signals" "indicate that entry into the ATMs has occurred." No such "signals" are shown in the Clark-passage cited by the PTO. Thus, claim 11 has not been shown in Clark.

Point 2

The rejection is obviousness-type. The PTO must provide a teaching for combining the Clark-passage identified above with the subject matter used to show claim 8. That has not been done.

RESPONSE TO 103-REJECTION OF CLAIM 4

Claim 4 is seen as patentable, based on its parent claim 3.

RESPONSE TO 103 - REJECTION OF CLAIM 5

Claim 5 was rejected as obvious, based on Clark and Ross.

09/651,983
Art Unit 3628
9040.00

Claim 5 recites:

5. In the operation of a system of ATMs,
a method comprising:

a) maintaining a security system within each
ATM, which

i) detects entry into the ATM, and

ii) issues an entry signal in response;
and

b) scheduling replenishment of a group of
ATMs during a time period; and

c) when entry signals are received from ATMs
within the group, during the time period,
designating the corresponding ATMs as having
been replenished in currency.

Point 1

Claim 5(c) states, in effect:

If you receive a burglar alarm from an ATM in
the "time period," assume that the ATM is
being replenished and not burglarized.

That operation, or reasoning, is nowhere found in the references,
even if combined. Thus, there is no reason to combine the
references for that purpose.

Point 2

Claim 5 states that

1) "entry signals" are received from the

09/651,983
Art Unit 3628
9040.00

"group,"

and

2) the ATMs in the "group" are then
"designat[ed] . . . as having been
replenished."

However, no "entry signals" from a "group" have been shown in the references.

No "designation" of the ATMs in the "group" as being "replenished" has been shown in the references.

Thus, even if the references are combined, claim 5 is not found.

Point 3

Claim 5 recites a "system of ATMs." Ross is cited to show that. However, he only shows a **single** ATM. This claim recitation is missing from the references, even if combined.

Point 4

The Final Action (page 7, last paragraph) admits that Ross fails to show scheduling replenishing of a group of ATMs during a time period. Thus, this claim recitation is missing from the references, even if combined.

The Office Action then asserts that it is "obvious" to perform this type of scheduling. However, that assertion is a mis-

09/651,983
Art Unit 3628
9040.00

application of the law of obviousness.

"Obviousness" is not a device to supply missing elements, which are not found in the prior art. MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

Instead, "obviousness" allows the PTO, under certain circumstances, to combine elements **which are shown in the prior art**.

But if a claim element is absent from the prior art, "obviousness" does not provide a tool for curing that absence.

The PTO must show, in the prior art, the scheduling which it admitted to be absent.

Point 5

Applicant submits that the reasoning of the Office Action is flawed.

The reasoning is that "If there exists a plurality of ATMs," then a group of them should be scheduled for a time period, because

- 1) the more-depleted ATMs (having less money)
are given priority and
- 2) conflicts in replenishment are avoided.

However, several problems exist in this reasoning.

09/651,983
Art Unit 3628
9040.00

Problem 1

POINT 1

One problem is that, as explained above, the premise of the rationale is hypothetical. No "plurality" of ATMs has been shown. The premise is that "If" a plurality exists.

A hypothetical does not qualify as prior art.

Stated another way, a plurality of ATMs is only found in Applicant's claims. The claims cannot be used as prior art.

POINT 2

The Final Action (Page 8, first full paragraph) attempts to rebut POINT 1 by asserting that "Ross's only showing of a single ATM is for an illustration purpose."

Appellant points out that this is no rebuttal. Ross "illustrates" a single computer because he discusses a **single** computer. No plurality of computers is needed by Ross to explain his invention.

This same paragraph of the Final Action asserts that it is well known that "banks usually consist of (sic) a plurality of ATMs connected through a network." Appellant points out that this is not dispositive.

It is also well known that individual merchants, such as convenient stores and gas stations, purchase their own ATMs, to draw customers into their establishments. These ATMs are not owned

09/651,983
Art Unit 3628
9040.00

by banks, are not managed by banks, and, in fact, sometimes customers of **ALL BANKS** pay a service charge to use these ATMs.

Thus, it is not known which type of ATM Ross is showing.

Nevertheless, Ross shows a **single** ATM. That does not show the claim recitation in question.

Problem 2

The Office Action has not shown why the more-depleted ATMs should be scheduled in the "group."

In fact, it makes more sense to schedule ATMs which are located geographically together. This would reduce travel time of the servicing technician.

Thus, the PTO's justification for the scheduling of the group appears to be based on Applicant's own claim, which is not allowed.

Problem 3

The PTO has not shown how avoidance of conflicts leads to the scheduling of a "group." In fact, the opposite would seem to be the case.

Assume that 5 technicians replenish ATMs. Assume ATMs numbered 1 through 20. A "group" of ATMs is scheduled for replenishment today, namely, the "even" ATMs (ie, 2, 4, 6 etc.) How does that scheduling of a group prevent technician 1 and 5 from **both** attempting to replenish ATM number 2 ?

09/651,983
Art Unit 3628
9040.00

That is, how does grouping of the **items to be serviced** act as an allocation of individual items to individual servicing technicians ? Restated, how does **grouping** of the **items** create pairs between the items and technicians, such as (Technician 1, ATM 2), (Technician 1, ATM 4), (Technician 2, ATM 6), etc. ?

It does not.

In fact, the opposite seems to be true. If no "group" were created, "conflicts" would be avoided. That is, if no "group" is scheduled for a given time period, but instead each ATM is scheduled for a separate technician, then "conflicts" are automatically avoided.

Problem 4

The motivation to combine the references is to solve a problem not shown in the prior art. That is not allowed.

The PTO's reasoning pre-supposes the existence of a problem, namely, "conflicts." But that problem does not actually exist, or at least has not been shown. Nevertheless, the PTO pre-supposes that, somehow, in the prior art, multiple technicians converge on the same ATM and mistakenly all try to replenish that ATM.

Applicant submits that this supposed "conflict" does not exist. Even if it did, utterly simple administrative expedients exist which would prevent such "conflicts." For example, a single technician is assigned a collection of ATMs. Since the single

09/651,983
Art Unit 3628
9040.00

technician can replenish only one ATM at a time, and since no other technician will ever visit these ATMs, no conflicts exist.

Therefore, since it appears that the teaching for combining the references is directed toward eliminating a non-existent problem, Appellant, in his previous response to the PTO, requested that the problem be shown in the prior art. No such showing has been made.

Point 6

The rationale for combining the references (page 8, end of first paragraph) does not actually lead to the combination.

The goal of the PTO's rationale is to "provide the status . . . report of a replenished ATM." However, Clark, by himself, provides such status reports. There is no need to combine Clark with Ross to obtain those status reports.

Further, the stated advantage of such status reports is non-existent. The stated advantage is that the reports eliminate "unnecessary trips to replenish an already replenished ATM."

Applicant asks, suppose ATM X is replenished, and a status report is issued. However, ATM X is located next to a major league baseball park in New York, where the World Series is being played. ATM X is emptied of cash within 20 minutes.

How did the status report eliminate "unnecessary trips to replenish an already replenished ATM" ? ATM X is now empty, and

09/651,983
Art Unit 3628
9040.00

needs replenishment.

Stated more generally, any need for replenishment will occur **after** the initial replenishment, and **after** the "status report" in question. How does the (previous) "status report" eliminate "unnecessary trips" which occur later ?

That is, how does the status report affect future events ?

Further, **after** the status report is issued, the next replenishment will occur at some time in the future. If a technician arrives for that replenishment when the ATM is still full of cash, then an "unnecessary trip" seems to be present.

How does the previous "status report" eliminate this unnecessary trip ? It does not.

Therefore, Appellant submits that the stated advantage of the status reports is non-existent.


Consequently, as just explained, the rationale for combining the references is defective.

09/651,983
Art Unit 3628
9040.00

CONCLUSION

Appellant requests the Board to overturn all rejections, and pass all claims to issue.

Respectfully submitted,


Gregory A. Weite
Reg. No. 30,434

NCR Corporation
1700 South Patterson Blvd
WHQ - 5E
Dayton, OH 45479
January 3, 2006
(937) 445 - 4956

ATTACHMENT: APPENDIX LISTING APPEALED CLAIMS

09/651,983
Art Unit 3628
9040.00

APPEALED CLAIMS

1. In connection with operation of a system of ATMs, each of which contains at least one computer, a method comprising the following steps:

- a) identifying low-stocked ATMs, which require replenishment of currency;
- b) causing replenishment of currency in low-stocked ATMs to occur;
- c) receiving replenishment signals from the replenished ATMs; and
- d) using the replenishment signals, and without using communications from parties performing the replenishment, preparing one, or more, reports concerning the ATMs replenished.

2. Method according to claim 1, wherein each replenishment signal is generated by a computer within an ATM.

3. Method according to claim 2, wherein the replenishment signals indicate contact with an ATM by a party other than a customer in the normal course of business.

4. Method according to claim 3, wherein entry into an ATM by a burglar causes a replenishment signal to occur.

09/651,983
Art Unit 3628
9040.00

5. In the operation of a system of ATMs, a method comprising:
 - a) maintaining a security system within each ATM, which
 - i) detects entry into the ATM, and
 - ii) issues an entry signal in response; and
 - b) scheduling replenishment of a group of ATMs during a time period; and
 - c) when entry signals are received from ATMs within the group, during the time period, designating the corresponding ATMs as having been replenished in currency.

6. A method of replenishing a plurality of ATMs, comprising the following steps:
 - a) for each ATM, making an estimate of the amount of currency stored therein, without measuring the currency presently stored;
 - b) using the estimates, identifying a subset of ATMs to be re-stocked with currency;
 - c) for each ATM in the subset, preparing a packet of currency;
 - d) transferring the packets to a courier;
 - e) receiving one, or more, signals from each ATM, which indicate interaction with the ATM by a party other than

09/651,983
Art Unit 3628
9040.00

a customer;

f) recording

- i) the times of receipt of the signals, and
- ii) the identities of the ATMs issuing the respective signals; and

g) ascertaining whether the signals were issued by an ATM within the subset and

- i) if not, contacting a law enforcement agency;
- ii) if so, adjusting the estimate of the currency stored within that ATM.

7. Method according to claim 6, wherein no person directly reports replenishment currency supply of any ATM.

8. In the operation of a group of ATMs, a method comprising:

a) generating a list of

- i) ATMs scheduled to be replenished in currency, and
- ii) the amounts of currency to be replenished in each;

b) receiving signals from the ATMs which indicate that entry into the ATMs has occurred;

c) based on the signals, preparing a report which

09/651,983
Art Unit 3628
9040.00

indicates

- i) ATMs scheduled for replenishment;
- ii) ATMs actually replenished; and
- iii) amount of replenishment for each ATM replenished.

9. Method according to claim 7, wherein no communications, made by parties performing the replenishment, are utilized in preparing said report.

10. Method according to claim 1, wherein the identifying process of paragraph (a) is performed by a system remote from the ATMs, without presence of a human at the ATMs.

11. Method according to claim 8, wherein the report is generated after the signals are received.